

# PATENT ABSTRACTS OF JAPAN

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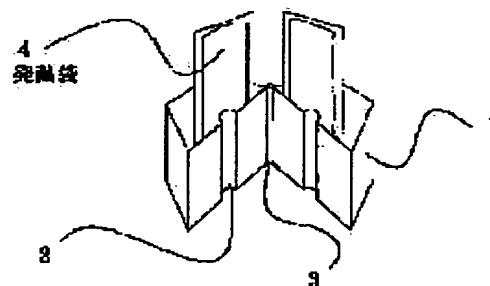
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## (54) DRIP HEAT RESERVING BOX

### (57)Abstract:

**PURPOSE:** To prevent calorie consumption of a human body subjected to dripping by a method wherein a box where a dripping pipe is set is arranged to house an exothermic bag therein and the exothermic bag is made to generate heat to warm an antibiotic substance in the dripping.

**CONSTITUTION:** A box 1 is constituted of a two-split structured split body provided with grooves 2 on respective opposed surfaces thereof to get a dripping pipe inserted therethrough and the separate split box bodies are connected with a hinge free to open or close through a shaft 3. Exothermic bags 4 are housed into the respective split box bodies free to move in or out and a dripping pipe is grasped between both the grooves 2 and 2 of both the split box bodies to be combined. Under such a condition, an antibiotic substance in the dripping is heated by heat generated from the exothermic bags 4. Here, when the exothermic bags 4 use a matter based on a chemical reaction, the box 1 is provided with a hole and air or a reaction substance is placed by opening or closing the hole to make the exothermic bags 4 generate heat. When any electric heat insulating method is used, aluminum and a nichrome wire are set inside the box 1 to reserve heat by electric energization.



## LEGAL STATUS

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CLAIMS

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[Claim(s)]

[Claim 1] They are a box (1) and the drop-by-drop-titration incubation box constituted with the slot (2), the shaft (3), and the exoergic bag (4).

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**DETAILED DESCRIPTION**

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[Detailed Description of the Invention]

[0001]

[Industrial Application] In order to keep a drop by drop titration warm, this invention is invented and relates to incubation of a drop by drop titration.

[0002]

[Description of the Prior Art] At a Prior art, there was no object which can keep a drop by drop titration warm easily.

[0003]

[Problem(s) to be Solved by the Invention] In the Prior art, since there was no object by which the antibiotic in a drop by drop titration is warmed, even if there were an antibiotic in a drop by drop titration and a temperature gradient of temperature, it was poured in as it is. For this reason, there was a fault that a calorie will be consumed by the drop by drop titration in winter etc. This invention is invented in order to solve this fault.

[0004]

[Means for Solving the Problem] The object which installed the slot (2), the shaft (3), and the exoergic bag (4) in the box (1) is installed in tubing of a drop by drop titration as a means for solving this problem.

[0005]

[Function] The antibiotic in a drop by drop titration is warmed by installing this invention in tubing of a drop by drop titration, and making an exoergic bag (4) generate heat.

[0006]

[Example] As an example of this invention, it is the object which installed the slot (2) shaft (3) exoergic bag (4), and insert tubing of a drop by drop titration into the part of a slot (2), an exoergic bag (4) is made to generate heat in a box (1), and the antibiotic in a drop by drop titration is warmed in it. In this case, if an exoergic bag (4) is an object by the chemical reaction, a hole (7) is established in a box (1), air or reacting matter will be put in and an exoergic bag (4) will be made to generate heat by closing motion of this hole (7). In addition, closing motion of this hole (7) may form a lid, or adhesive tape is sufficient as it. Moreover, an exoergic object is put in as it is, and it may be used, and similarly, after making an exoergic bag (4) generate heat in a box (1), you may use it for it into a box (1), putting in. In addition, when using it electrically, a hole (7) may be used for wiring.

[0007] A die form or a cylinder is sufficient also as a hexagonal prism, and the form of a box (1) just surrounds tubing of a drop by drop titration for it. moreover, the part of a slot (2) -- some boxes (1) -- you may use it -- a raw material -- aluminum .

[0008] If the raw material of a box (1) is elastic plastics, by modeling, it can move easily the part of a shaft (3) required in order to put to a hollow-like semicircle, and it can pinch it. You may make it the part of a shaft (3) move by other approaches, of course. When installing this in tubing of a drop by drop titration, a box (1) may be modeled so that you may stick with adhesive tape etc. and it can fix to tubing of a drop by drop titration beforehand, since a box (1) is fixed to tubing of a drop by drop titration.

[0009] A nichrome wire (6) is installed with aluminum (5) inside a box (1), and you may enable it to use it for it with the electrical and electric equipment as an approach of using it electrically. In this case, it is good to connect a thermistor and a thermal fuse to a nichrome wire (6), to pass the electrical and electric equipment of a low battery, and to make it warm. Moreover, after making a box (1) water proof and putting in a liquid or a soft body, similarly, you may warm, the liquid of 100 or less degrees may be electrically, put in into a box (1), and tubing of a drop by drop titration may be inserted and warmed. In addition, a small thermometer, a heat discoloration seal, etc. are installed in a box (1) or tubing of a drop by drop titration,

and you may enable it to check temperature. Furthermore, instead of a nichrome wire (6), the plate of the mineral of high resistance is made to approach tubing of a drop by drop titration, and it may warm electrically, and \*\*\*\*\* is also good and you may warm by the coil and the magnetron similarly. Moreover, when using it electrically, it seems that it can be used by the battery and a thermistor etc. may all be installed in a box (1).

[0010]

[Effect of the Invention] By installing this invention in tubing of a drop by drop titration, and making an exoergic bag (4) generate heat, the antibiotic in a drop by drop titration can be warmed, and consumption of the body of a calorie can be prevented.

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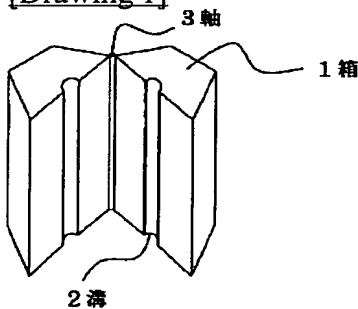
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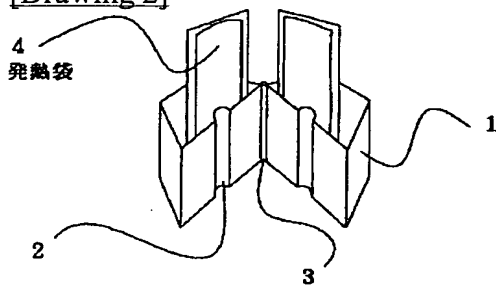
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## DRAWINGS

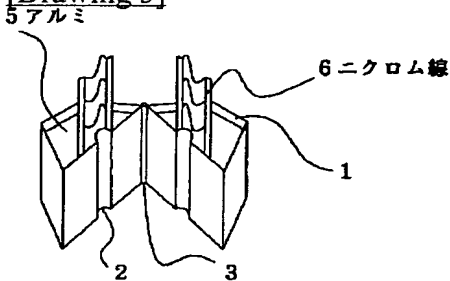
[Drawing 1]



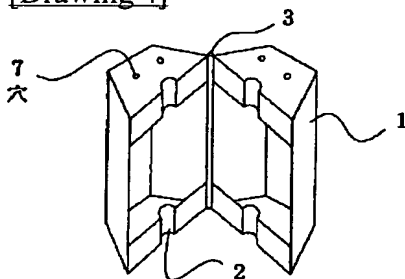
[Drawing 2]



[Drawing 3]



[Drawing 4]



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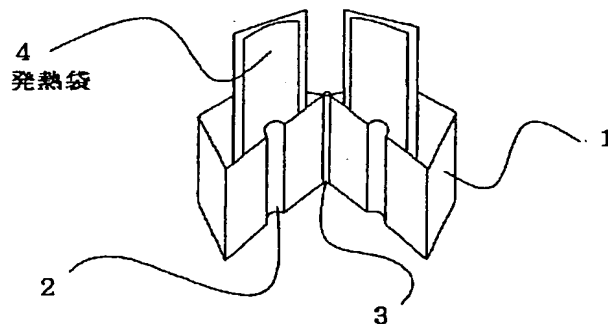
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(54) 【発明の名称】 点滴保温箱

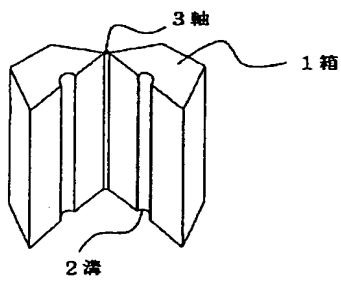
(57) 【要約】

【目 的】 本発明を、点滴の管に設置し、発熱袋(4)を、発熱させることにより、点滴内の抗生物質を暖める。

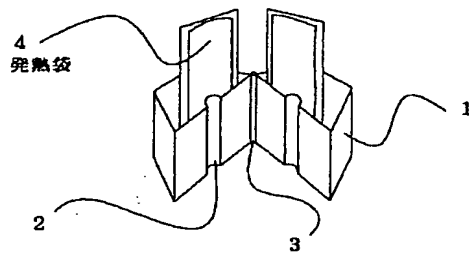
【構 成】 箱(1)と、溝(2)、軸(3)、発熱袋(4)によって構成された、点滴保温箱である。



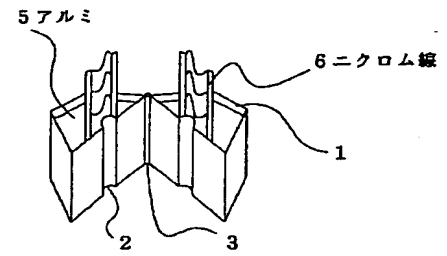
【図1】



【図2】



【図3】



【図4】

